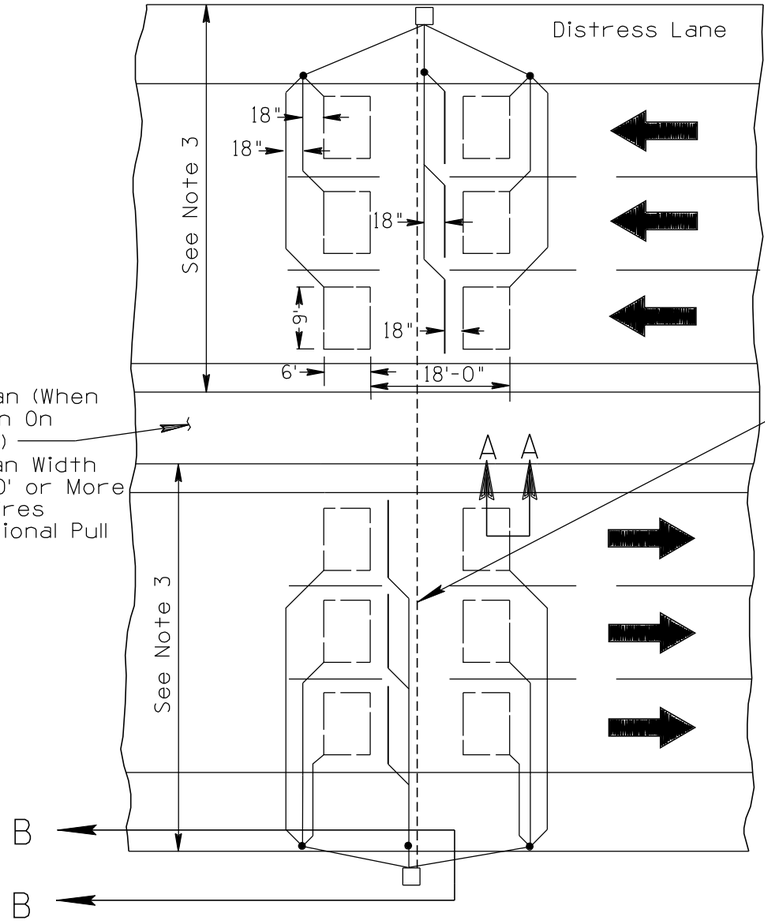
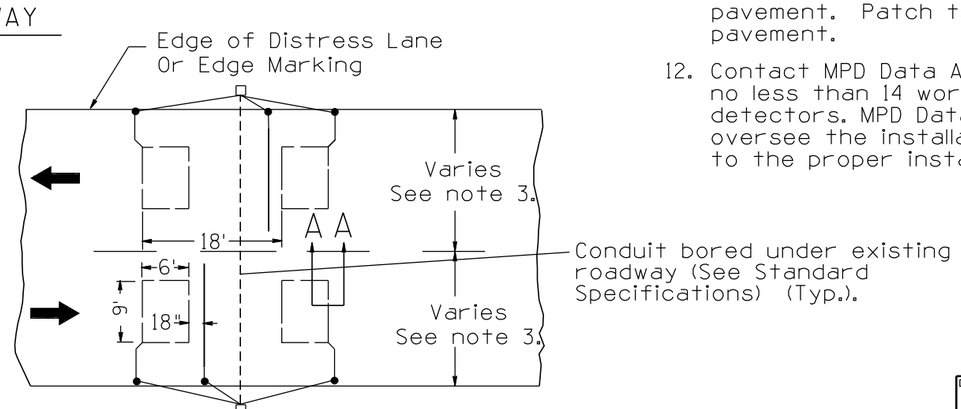
NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	UPDATED FOR RE-ISSUE	J. GEIST	9/08
2			
3			
4			



CLASS INSTALLATION IN MULTI-LANE HIGHWAY



CLASS INSTALLATION IN UNDIVIDED HIGHWAY

NOTES:

1. Speed monitoring/vehicle classification systems require 1 flat type piezo sensor, between 2 speed loops per lane, centered in lane with an 18' separation, leading edge to leading edge. Piezo sensor must be parallel to the leading edges of both loops and perpendicular to the roadway with no more than 1" variation across the face of the piezo sensor or loops.
2. 10' piezo sensors are standard for all travel lanes up to 12 feet in width. For lanes wider than 12 feet adjust length of piezo to allow for 1 foot from center stripe and lane edge marking to maintain the sensors aquisition of all vehicles passing through the lane.
3. 9' x 6' loops with 3 turns of sheathed, THHN stranded, 14 AWG, single conductor, copper wire are standard for all travel lanes up to 12 feet in width. For lanes widths other than 12 feet, adjust width of loop detector to allow for 1.5 feet from lane stripe to loop detector and 1.5 feet from loop detector to next lane stripe across all lanes. Maintain 6 foot travel direction dimension of loop detector.
4. Backfill with excavated material and thoroughly tamp.
5. For cabinet and foundation standard drawings and details, refer to T.S. 7-4 and T.S. 4-1
6. Where pull boxes are installed in concrete areas, ½" felt shall be used as an expansion joint.
7. All excavated material not reused shall be properly disposed of.
8. Piezo sensors and loops to be placed in travel lanes (roadway width less painted distress lane or edge marking = travel lanes).
9. Saw cut sealant for detector loops and piezo sensors lead-in in AC shall be the emulsified crack filler sealant per the Standard Specifications. The sand shall be pre-mixed by the manufacturer. Sealant for detector loops in PCCP shall be the Elastomeric Sealant per the Standard Specifications, or an approved two-part epoxy loop sealant.
10. ADOT will supply piezo and piezo encapsulation sealant/grout to be used during installation. (See Note 12)
11. Use same material (or approved equal) for patching existing pavement. Patch to at least ¼" greater thickness than existing pavement.
12. Contact MPD Data Analysis at (602-712-8585) or (602-712-8598) no less than 14 working days prior to installation of the loop detectors. MPD Data Analysis will have a technician available to oversee the installation, and to answer any questions pertaining to the proper installation and layout of the ATR components.

SHEET 1 OF 4
NOT TO SCALE

DESIGN APPROVED: SIGNATURE ON FILE	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION TRAFFIC SIGNALS & LIGHTING STANDARD DRAWINGS	REV. 9/08
APPROVED FOR DISTRIBUTION	DETECTOR LOOPS FOR SPEED/VEHICLE CLASS	DRAWING NO. T.S. 7-3